

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003370**Date Inspected:** 27-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Chen Chih-Ming/Zhao Chen Sun/Huang Wen-Pang/Chen X			Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No N/A
				Delayed / Cancelled:	Yes	No N/A

Bridge No: 34-0006**Component:** OBG side, bottom, deck panels, floor beams a**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG new assembly bay 2

QA observed ZPMC qualified welding personnel perform FCAW welding on joint# SP-074-001-031 following the guide lines of WPS-B-P-2213-B-U2. QC monitored the welding process continuously throughout the evening. The welder ID and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 24.7 Amps: 150 Travel speed: 105mm/min

Welder ID: 051348

QA observed ZPMC qualified welding personnel perform SAW on deck panel joint# SEG-017-006 DP-026A to DP-028A following the guide lines of WPS# WPS-B-T-2221-B-L2c-S-2. QC monitored the welding process continuously throughout the evening. The welder ID and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 32.8 Amps: 572 Travel speed: 502mm/min

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Welder ID: 045265

QA observed ZPMC qualified welding personnel SMAW tack welding floorbeam 5B @ PP-027 OBG section 4BW to bottom panel.

QA observed ZPMC MT technician MT CWR (Critical Weld Repair) excavations on the following side panel T-stiffener webs: 3 locations on SP-063A, 4 locations on SP-051A and 5 locations on SP-075A. These base metal defects were created by the weld bevel prep process. During the beveling process of the side panel the T-stiffener webs were cut into by the torch. See attached photo for details. ZPMC performing these repairs following the guide lines of approved CWR report# B-CWR-130 and SMAW WPS-V-P-2213-B-U2. QC monitored the repair welding process continuously until its completion. The welder ID and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 22 Amps: 110 Travel speed: 80mm/min

Welder ID: 067611

Other general observations include ZPMC personnel fitting and welding OBG east fixture, OBG temporary support columns, grinding and weld bevel prep on various OBG components.

OBG bay 1

QA observed ZPMC personnel fitting u-rib stiffeners to DP-603-001. QA also noted that ZPMC completed PJP u-rib to deck plate GMAW and SAW welds on gantry for DP-091-001 and DP-548-001.

QA performed 10% verification UT for u-rib diaphragms for deck panel DP-588-001. all welds that were scanned appeared to comply with AWS D1.5 2002 and the contract documents.

OBG bay 2

QA noted that there was no Caltrans work being performed in this bay on this day.

OBG bay 3

QA observed ZPMC personnel preparing parts for fit up and welding; (cutting parts, drilling and weld bevel prep).

QA observed ZPMC personnel fitting stiffeners to bottom panels BP-309-001, BP-310-001, BP-311-001 and BP-312-001.

OBG bay 4

QA observed ZPMC qualified welding personnel perform FCAW 3G welding on three tower diaphragm flanges.

QA observed ZPMC qualified welding personnel FCAW welding two diaphragm flanges in two tower diaphragms.

QA observed ZPMC personnel fitting one diaphragm flange.

QA observed ZPMC personnel flame straighten OBG side panel.

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QA observed ZPMC personnel SAW temporary columns and preparing parts for fit up and welding; (cutting parts and weld bevel prep).

OBG bay 7

QA observed ZPMC personnel fit and SMAW tack welding stiffeners to several floor beam web plates.

Other general observations include ZPMC personnel grinding and weld bevel prep on various OBG components.

OBG bay 8

No welding operations were observed in this bay today.

Other general observations include ZPMC personnel grinding and weld bevel prep on various OBG and tower components.



Summary of Conversations:

Only general conversations were held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ryan Smith, (858) 232-6799, who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
